

RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10/524, 433

Source: PCT

Date Processed by STIC: 2-26-05

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PCT

RAW SEQUENCE LISTING

DATE: 02/26/2005

PATENT APPLICATION: US/10/524,433

TIME: 10:48:37

Input Set : D:\10784-023-228 SEQLIST.TXT

Output Set: N:\CRF4\02262005\J524433.raw

4 <110> APPLICANT: Functional Genetics, Inc.
 6 <120> TITLE OF INVENTION: MAMMALIAN GENES INVOLVED IN RAPAMYCIN
 7 RESISTANCE AND TUMORGENESIS: RAPR6 GENES
 9 <130> FILE REFERENCE: 10784-023-228
 C--> 11 <140> CURRENT APPLICATION NUMBER: US/10/524,433
 C--> 12 <141> CURRENT FILING DATE: 2005-02-15
 14 <160> NUMBER OF SEQ ID NOS: 15
 16 <170> SOFTWARE: FastSEQ for Windows Version 4.0
 18 <210> SEQ ID NO: 1
 19 <211> LENGTH: 966
 20 <212> TYPE: DNA
 21 <213> ORGANISM: murine
 23 <220> FEATURE:
 24 <221> NAME/KEY: misc_feature
 25 <222> LOCATION: 548, 564, 567, 583, 603, 610, 636, 647, 648, 651, 654, 656,
 26 661, 667, 669, 675, 691, 710, 713, 719, 732, 746, 749, 754,
 27 761, 771, 777, 781, 792, 795, 802, 808, 812, 813, 824, 833,
 28 841, 842, 856, 861, 866, 871, 873, 874, 875, 882, 887
 29 <223> OTHER INFORMATION: n = A,T,C or G
 31 <220> FEATURE:
 32 <221> NAME/KEY: misc_feature
 33 <222> LOCATION: 897, 902, 905, 910, 915, 923, 927, 928, 935, 938, 948, 949,
 34 965, 966
 35 <223> OTHER INFORMATION: n = A,T,C or G
 37 <400> SEQUENCE: 1
 38 gccctgcctg ccctgcctgc cctgcctgcc ctgcctgccc tgccctgcctt gcctgccttg 60
 39 cctgccttgc ctgccttgc tcaggaatcc cagaacgaag gcctggcctg ggcccttctg 120
 40 gccatggctc cctcagtcct ctgggcacca caaaggcttt ttcccaggaa gagaacgcct 180
 41 tgcccttact ttagctggg gttgcctggg aggtgcgtca tagtgtgtct tagtaagttt 240
 42 tgaacactgg ggaagagcct caggcgtctc tacgcgggta gtgtcagtgc tgaccctttg 300
 43 aaagtgggtg gttcccttct gagggatgtg cctgtgggtga actcttcagg agagctgccc 360
 44 caggggaagg caggacagat gtcttttaaa caccaggga agtacacagc ctcccgcctc 420
 45 aggcggagcc cagtggaaag tagccacctt ccttgcaatc tgccacacct ggcacaggag 480
 46 agcctgcact ggccgcgttg ggctttggtg ctggctctgt actccactt gcttgctggg 540
 W--> 47 ggccctcangg aaaggctcct tctnaangaa acaaagccac ctntctcccc tccctggcat 600
 48 gntttttcn gccacagcc ccgtgtgtgc caacanaaat tttggcnca ngangnaagg 660
 49 ntggganana acccnaaaac tattgtggct nccctgttgc ccctgctgtc ccnggtttna 720
 50 tgggaacgag gncctccac cccctnggna acgnataacc ncacccgtgg naatggnggg 780
 51 nttggggtgc antcnttacc cncctcangg gnnaggcgcc ggngntcaaac ctnggggaac 840
 52 nnaaaaaaaa acccanggcc ntttngtcc ncnnggccc cnagggnntt tattttnttt 900
 53 anaangggan ggtgncccca atnctcnaa aactnggntt ttttaagnnt ttcttgcaaa 960
 54 attggnn 966
 56 <210> SEQ ID NO: 2

(ps.6)

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57 <211> LENGTH: 1107
58 <212> TYPE: DNA
59 <213> ORGANISM: murine
61 <220> FEATURE:
62 <221> NAME/KEY: misc_feature
63 <222> LOCATION: 396
64 <223> OTHER INFORMATION: n = A,T,C or G
66 <400> SEQUENCE: 2
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68 tatggcctcg ctggtggcat atgatgattc tgactccgag accgaggtcg accctgccag 120
69 aagtggggac gctgcaggtg tggaatgctg tggactcggg acactgcctg cagacctact 180
70 ctgtgcacag tgaggcagta agggctgaac ggtggtctcc ctgtggccgg cgcacacctca 240
71 gtggtggctt cgactttgcc ctgcacctaa cagaccttga aacaggaacc caagtgttta 300
72 gtggtcagag tgacttcaga gtcaccacct tgaaatttca tccaaaagaa cacaacgtct 360
W--> 73 ttttatgtgg cggcttcagc tctgaaatca acagngggga catgaggact ggcaaggtgg 420
74 tgaaaggcta caaggccacc atccagcaga ccctggacat tctcttcctc caggagggct 480
75 ccgagtttct tagcagtacg gacgcacca cccgggactc tgctgaccga accattatcg 540
76 cctgggattt ccggaccgct gccaatgctt ccaaccagat cttccatgag aggtacacct 600
77 gtcccagcct cgcttgcac ccaagggagc ctgtgttctt tgcacaaacc aatggcaact 660
78 acctggctct cttttctctt gtgtggccct atcggatgag cagacggaga cgctacgaag 720
79 gtcacaaggt ggaaggctac gcgggtgggt gtgagtgttc cccatgtggt gacctgctgg 780
80 tgacaggcag cgctgatggc cgggttttga tgttcagttt ccgcacggcc agccgagcgt 840
81 gcgcactaca agggcacacg caggcctgcc ttggcaccag ctaccatcct gtgctgcctt 900
82 ctgtcctcgg gacctgctcc tggggaggag acatcaagat ctggcactaa ctggcaactg 960
83 agacctgccc ctgggatagg cggccggagg tcaggctgct cccgagagct gctgggcttc 1020
84 agtgactcgg ctatagcatg ggggtgagaa cgccgtctcg gcgcaagcgt gtgtcagaac 1080
85 ggggtagccg aagtgactgg tgggcga 1107
87 <210> SEQ ID NO: 3
88 <211> LENGTH: 289
89 <212> TYPE: PRT
90 <213> ORGANISM: murine
92 <220> FEATURE:
93 <221> NAME/KEY: VARIANT
94 <222> LOCATION: 106
95 <223> OTHER INFORMATION: Xaa = Any Amino Acid
97 <400> SEQUENCE: 3
98 Met Met Ile Leu Thr Pro Arg Pro Arg Leu Thr Leu Pro Glu Val Gly
99 1 5 10 15
100 Thr Leu Gln Val Trp Asn Ala Val Asp Ser Gly His Cys Leu Gln Thr
101 20 25 30
102 Tyr Ser Val His Ser Glu Ala Val Arg Ala Glu Arg Trp Ser Pro Cys
103 35 40 45
104 Gly Arg Arg Ile Leu Ser Gly Gly Phe Asp Phe Ala Leu His Leu Thr
105 50 55 60
106 Asp Leu Glu Thr Gly Thr Gln Val Phe Ser Gly Gln Ser Asp Phe Arg
107 65 70 75 80
108 Val Thr Thr Leu Lys Phe His Pro Lys Glu His Asn Val Phe Leu Cys
109 85 90 95
W--> 110 Gly Gly Phe Ser Ser Glu Ile Asn Arg Xaa Asp Met Arg Thr Gly Lys

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```

111          100          105          110
112 Val Val Lys Gly Tyr Lys Ala Thr Ile Gln Gln Thr Leu Asp Ile Leu
113          115          120          125
114 Phe Leu Gln Glu Gly Ser Glu Phe Leu Ser Ser Thr Asp Ala Ser Thr
115          130          135          140
116 Arg Asp Ser Ala Asp Arg Thr Ile Ile Ala Trp Asp Phe Arg Thr Ala
117 145          150          155          160
118 Ala Lys Ile Ser Asn Gln Ile Phe His Glu Arg Tyr Thr Cys Pro Ser
119          165          170          175
120 Leu Ala Leu His Pro Arg Glu Pro Val Phe Leu Ala Gln Thr Asn Gly
121          180          185          190
122 Asn Tyr Leu Ala Leu Phe Ser Ser Val Trp Pro Tyr Arg Met Ser Arg
123          195          200          205
124 Arg Arg Arg Tyr Glu Gly His Lys Val Glu Gly Tyr Ala Val Gly Cys
125          210          215          220
126 Glu Cys Ser Pro Cys Gly Asp Leu Leu Val Thr Gly Ser Ala Asp Gly
127 225          230          235          240
128 Arg Val Leu Met Phe Ser Phe Arg Thr Ala Ser Arg Ala Cys Ala Leu
129          245          250          255
130 Gln Gly His Thr Gln Ala Cys Leu Gly Thr Ser Tyr His Pro Val Leu
131          260          265          270
132 Pro Ser Val Leu Gly Thr Cys Ser Trp Gly Gly Asp Ile Lys Ile Trp
133          275          280          285
134 His
138 <210> SEQ ID NO: 4
139 <211> LENGTH: 290
140 <212> TYPE: DNA
141 <213> ORGANISM: murine
143 <220> FEATURE:
144 <221> NAME/KEY: exon
145 <222> LOCATION: (1)...(290)
146 <223> OTHER INFORMATION: murine RapR6 exon 1
148 <400> SEQUENCE: 4
149 atgacaggct ggggtgggagg cgccgcccga gctcccgggt cctcgtggt acaggtgccc 60
150 agagaacaga cagcccgggt ccgagctgga tctcggggc gcggcgccgg ggcgtcaacc 120
151 gaaggccccg gcgccacctc ggcacccctc cctcgtctcc ggcgcagtga ccacccctc 180
152 ctcaattacc ggcggccccc acttcggccc caccagtcag ccccccaag ttcagccacc 240
153 ggtacctctt gggcgctcgt ggaaacacca gccggctgga ataacttcg 290
155 <210> SEQ ID NO: 5
156 <211> LENGTH: 98
157 <212> TYPE: DNA
158 <213> ORGANISM: murine
160 <220> FEATURE:
161 <221> NAME/KEY: exon
162 <222> LOCATION: (1)...(98)
163 <223> OTHER INFORMATION: murine RapR6 exon 2
165 <400> SEQUENCE: 5
166 gaagtcacct ttgtgtgact gtatggcctc gctgggtggca tatgatgatt ctgactccga 60
167 gaccgaggct gaccctgccga gaagtgggga cgctgcag 98

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Input Set : D:\10784-023-228 SEQLIST.TXT

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```

169 <210> SEQ ID NO: 6
170 <211> LENGTH: 180
171 <212> TYPE: DNA
172 <213> ORGANISM: murine
174 <220> FEATURE:
175 <221> NAME/KEY: exon
176 <222> LOCATION: (1)...(180)
177 <223> OTHER INFORMATION: murine RapR6 exon 3
179 <400> SEQUENCE: 6
180 ctgcctgtct taagccacta aaacctgcct gggacgtcct caaaccttct catgatcaaa 60
181 gcacatttga aagcacagct ggaaatgcca gctcttctca gaggaaaagg ggtgaggact 120
182 gtgtgcttcc ctatatcccc aagaggctaa ggcagctgca agcgctgaat ccagaagcag 180
185 <210> SEQ ID NO: 7
186 <211> LENGTH: 173
187 <212> TYPE: DNA
188 <213> ORGANISM: murine
190 <220> FEATURE:
191 <221> NAME/KEY: exon
192 <222> LOCATION: (1)...(173)
193 <223> OTHER INFORMATION: murine RapR6 exon 4
195 <400> SEQUENCE: 7
196 tgtctgagtt catccagcca tatttgaaca gtcagtacag agagactacg gtccccaaga 60
197 aagtgctttt ccaccttcga ggccacaggg gcccggtcaa cagcattcag tgggtgtccag 120
198 tcttttgcaa gagccacatg cttctctctg cttccatgga caaaccttc aag 173
200 <210> SEQ ID NO: 8
201 <211> LENGTH: 70
202 <212> TYPE: DNA
203 <213> ORGANISM: murine
205 <220> FEATURE:
206 <221> NAME/KEY: exon
207 <222> LOCATION: (1)...(70)
208 <223> OTHER INFORMATION: murine RapR6 exon 5
210 <400> SEQUENCE: 8
211 ttctgccgtg aacatggcta tgcaggcacc tctgtggatc ccgacacagg ctcccttggg 60
212 atggacccag 70
214 <210> SEQ ID NO: 9
215 <211> LENGTH: 128
216 <212> TYPE: DNA
217 <213> ORGANISM: murine
219 <220> FEATURE:
220 <221> NAME/KEY: exon
221 <222> LOCATION: (1)...(128)
222 <223> OTHER INFORMATION: murine RapR6 exon 6
224 <400> SEQUENCE: 9
225 gaatcccaga acgaaggcct ggccctgggcc ttccctggcca tggctccctc agtcctctgg 60
226 gcaccacaaa ggctttttcc caggaagaga acgccttgcc tctacttgta gctgggggtg 120
227 cctgggag 128
229 <210> SEQ ID NO: 10
230 <211> LENGTH: 1238

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Input Set : D:\10784-023-228 SEQLIST.TXT

Output Set: N:\CRF4\02262005\J524433.raw

```

231 <212> TYPE: DNA
232 <213> ORGANISM: Homo sapiens
234 <400> SEQUENCE: 10
235 ggcacgaggg agggaggagg tgagagtgat tagtgggaga agaaaagcag gcccaggacc 60
236 aagccctggg gactggggac atcctcggtg accctgtgga gcattgagcc atgccagctc 120
237 tgtgcctggg gctgtgctgg tttcaagggc tggtgggaga ggtatggaac gccgtggact 180
238 ccgggcactg cctgcagacc tactccctgc acacagaggc agtgcggggc gcccggtggg 240
239 ctccctgtgg ccggcgcac ctcagtggg gctttgactt cgcgctgcac ctaacagacc 300
240 ttgaaacagg aaccagcta tttagtggc gaagtgactt tagaatcact accttgaaat 360
241 tccatccaaa agaccacaac atctttttat gtggaggctt cagctctgaa atgaaagctt 420
242 gggatataag gactggcaag gtgatgagaa gctacaaggc gaccatccag cagaccttgg 480
243 acatcctgtt cctccgggaa ggctccgagt tcctgagcag cacagacgct tccacccggg 540
244 actcagctga ccgcaccatt attgcctggg atttccggac ctctgccaaa atctccaacc 600
245 agattttcca cgagagggtt acctgcccca gcctcgccctt gcacccgaga gagcccgtgt 660
246 tcctggcaca gaccaatggc aactacctgg cccttttctc cactgtgtgg ccctaccgga 720
247 tgagcagacg gcggcgctat gaagggcaca aggtggaggg ctactcagtg ggctgcgagt 780
248 gctccccagg cggtgacttg ctggtgacgg gcagcgccga tggccgggtc ctgatgtaca 840
249 gcttccgcac agccagccga gcatgcacac tgcaggggca cacacaggcc tgtgtcggca 900
250 ccacctacca ccccgctgtg ccctccgtcc tcgccacctg ctctggggga ggggacatga 960
251 agatctggca ctgagctttt tgtcactgaa ctttcccgat gccagctggg ctcttgact 1020
252 cccctcttcc tcaagggtag atgagaggaa cgagcacaga ggttggctgt gggctcctggg 1080
253 taccaccttc tgagcctcag tttcctcatc tgtaaagtgg ggagaaaagt ctgtttgcct 1140
254 caggagtgtg aggactacac tagtgaaagc gcctggcggg cagccggcga tgcccaataa 1200
255 atgtgtgttt tgctgtttgt taaaaaaaaa aaaaaaaaaa 1238
257 <210> SEQ ID NO: 11
258 <211> LENGTH: 287
259 <212> TYPE: PRT
260 <213> ORGANISM: Homo sapiens
262 <400> SEQUENCE: 11
263 Met Pro Ala Leu Cys Leu Val Leu Cys Trp Phe Gln Gly Leu Leu Gly
264 1 5 10 15
265 Glu Val Trp Asn Ala Val Asp Ser Gly His Cys Leu Gln Thr Tyr Ser
266 20 25 30
267 Leu His Thr Glu Ala Val Arg Ala Ala Arg Trp Ala Pro Cys Gly Arg
268 35 40 45
269 Arg Ile Leu Ser Gly Gly Phe Asp Phe Ala Leu His Leu Thr Asp Leu
270 50 55 60
271 Glu Thr Gly Thr Gln Leu Phe Ser Gly Arg Ser Asp Phe Arg Ile Thr
272 65 70 75 80
273 Thr Leu Lys Phe His Pro Lys Asp His Asn Ile Phe Leu Cys Gly Gly
274 85 90 95
275 Phe Ser Ser Glu Met Lys Ala Trp Asp Ile Arg Thr Gly Lys Val Met
276 100 105 110
277 Arg Ser Tyr Lys Ala Thr Ile Gln Thr Leu Asp Ile Leu Phe Leu
278 115 120 125
279 Arg Glu Gly Ser Glu Phe Leu Ser Ser Thr Asp Ala Ser Thr Arg Asp
280 130 135 140
281 Ser Ala Asp Arg Thr Ile Ile Ala Trp Asp Phe Arg Thr Ser Ala Lys
282 145 150 155 160

```

RAW SEQUENCE LISTING ERROR SUMMARY
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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; N Pos. 548,564,567,583,603,610,626,647,648,651,654,656,661,667,669
Seq#:1; N Pos. 675,691,710,713,719,732,746,749,754,761,771,777,781,792,795
Seq#:1; N Pos. 802,808,812,813,824,853,841,842,856,861,866,871,873,874,878
Seq#:1; N Pos. 882,887,897,902,905,910,915,923,927,928,935,938,948,949,965
Seq#:1; N Pos. 966
Seq#:2; N Pos. 395
Seq#:3; Xaa Pos. 106
Seq#:12; N Pos. 39

. . . VERIFICATION SUMMARY

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L:11 M:270 C: Current Application Number differs, Replaced Current Application Number
L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:47 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:540
M:341 Repeated in SeqNo=1
L:73 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:360
L:110 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:96
L:315 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:0